

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	SCOTT SWIX ET AL.	)
		) Group Art Unit:
Serial No.:	10/017,428	) 2424
		) Examiner:
Filed:	December 14, 2001	) Shepard, Justin E.
		)
For:	DIGITAL VIDEO BROADCAST DEVICE	)
	DECODER	)

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPEAL BRIEF

**REAL PARTY IN INTEREST**

The real party in interest is AT&T Intellectual Property I, L.P., an entity owning certain assets of BellSouth Intellectual Property Corporation, the assignee of record.

**RELATED APPEALS AND INTERFERENCES**

There are no pending appeals or interferences related to this appeal.

**STATUS OF CLAIMS**

Claims 1-4 and 11 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton.

Claims 12, 14 and 15 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin.

Claims 5-9 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Rajakarunanajake.

Claim 16 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Rajakarunanajake.

Claim 10 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and D'Luna.

Claim 13 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Lorenz.

The rejections of claims 1-16 are herein appealed.

#### STATUS OF AMENDMENTS

There have been no amendments filed after the final rejection mailed February 25, 2008.

#### SUMMARY OF CLAIMED SUBJECT MATTER

A concise explanation of the subject matter defined in each of the independent claims involved in the appeal is provided below.

Independent claim 1 recites a digital residential entertainment system, comprising: a media server (Figure 6) tuning (Figure 7, element 121) to a transport layer and transmitting the entire transport layer, rather than a single program stream, over a system bus (Figure 7, element 620), the transport layer including multiple programs, data and information streams (page 24, lines 19-25); a broadband input/output module (Figure 7, element 735) receiving the transport layer from the system bus and sending the transport layer to a network bus (Figure 7, element 615); a network input/output module (Figure 7, 701) receiving the transport layer from the network bus; a decryption module (Figure 7, 702) that receives the transport layer from the network input/output module and that decrypts the transport layer; a demultiplexer (Figure 7, 703) that receives the decrypted transport layer from the decryption module and that demultiplexes the decrypted transport layer; a decoder (Figure 7, 704) that decodes the demultiplexed and decrypted transport layer; and a media bus (Figure 7, 610) providing a decoded transport layer from the decoder to a display device (page 25, line 3 – page 26, line 21).

Independent claim 12 recites a digital residential entertainment system, comprising: a tuner array (Figure 7, elements 121) connected to a system bus (Figure 7, element 620), the tuner array receiving and demodulating a plurality of transport layers, tuning to a specific transport layer identified by a decoder and sending the entire identified transport layer, rather than a single program stream, over the system bus, the transport layer including multiple programs, data and information streams (page 24, lines 19-25); a broadband input/output module (Figure 7, element 735) connected to the system bus and receiving the transport layer from the system bus and sending the transport layer to a network bus (Figure 7, element 615); a network input/output module (Figure 7, element 701) connected to the network bus and retrieving the transport layer from the network bus; a decryption module (Figure 7, element 702) connected to the network input/output module and that receives the transport layer from the network input/output module and that decrypts the transport layer; a demultiplexer (Figure 7, element 703) connected to the decryption module and that receives the decrypted transport layer and that demultiplexes the transport layer; another decoder (Figure 7, element 704) connected to the demultiplexer that decodes the demultiplexed and decrypted transport layer; and a media bus (Figure 7, element 610) providing a decoded transport layer from the another decoder to a display device (page 25, line 3 – page 26, line 21).

The above exemplary embodiments are discussed with respect to the aforementioned independent claims by way of example only and are not intended to in any way limit the scope of these claims.

#### GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4 and 11 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton.

Claims 12, 14 and 15 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin.

Claims 5-9 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Rajakarunanajake.

Claim 16 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Rajakarunanajake.

Claim 10 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and D'Luna.

Claim 13 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Lorenz.

## ARGUMENT

### **I. Rejection of claims 1-4 and 11**

Claims 1-4 and 11 were rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton. This rejection is traversed for the following reasons.

#### **A. The claimed system bus, network bus and media bus**

The Examiner states that Goodman teaches all these elements, whereas Applicants disagree with this interpretation. The diagram below is Applicants understanding of how the Examiner is construing Goodman.

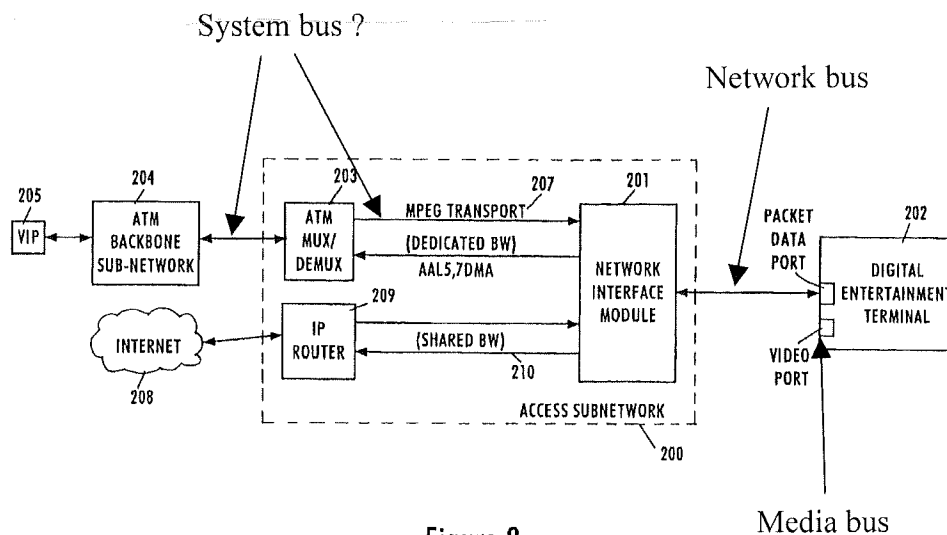


Figure 2

It is not clear what element is the system bus; however, the Examiner does consider the connection from the NIM 201 to the DET 202 as the network bus. With respect to the claim language, claim 1 recites “a media server tuning to a transport layer and transmitting the entire transport layer, rather than a single program stream, over a system bus, the transport layer including multiple programs, data and information streams.” In applying Goodman, the Examiner cites to access subnetwork 200 and tuner 901/903 (inside NIM 201) as corresponding to the claimed media server (see Figure 2). Tuner 901/903 sends information to the DET 202 (column 19, lines 19-45). Claim 1 recites the media server “transmitting the entire transport layer, rather than a single program stream, **over a system bus.**” Thus, if the NIM 201 corresponds to the claimed media server, then the link between the NIM 201 and the DET 202 must be the system bus to fit claim 1. The claimed media server transmits over the system bus. The Examiner, however, considers the link between the NIM 201 and the DET 202 as the network bus.

If the link between the NIM 201 and the DET 202 is considered the claims “system bus” then the Examiner cannot find a network bus. If this link is considered a “network bus” then there is no “system bus.” No matter how the components of Goodman are construed, the fact remains that from the access subnetwork 200 to a display at the video port of the DET 202, there are only two connections that may be construed as buses. These two connections cannot correspond to the three buses recited in claim 1. Goodman simply lacks the same number of connections to correspond to claim 1.

### **B. The decryption module**

Claim 1 recites “a decryption module that receives the transport layer from the network input/output module and that decrypts the transport layer.” In applying Goodman, the Examiner construes the DET 202 as including the network input/output module as element 827. Based on this interpretation, Goodman would need a decryption module downstream of element 827. The Examiner cites to Hylton for disclosing a decryption module and proposes adding a decryption module to the DET 202. Applicants submit there is no logical reason to add the decryption module of Hylton to the DET 202 of Goodman. Goodman already has a decryption module in the NIM 201 as shown as element 907 in Figure 9. It is unclear why a decryption module would be needed in the DET 202 when it is already present in the NIM 201. The only rationale provided by the Examiner in the rejection is that the NIM and DET are separate devices. The fact that the NIM and DET are separate devices does not make adding a decryption module to the DET obvious. The signal sent to the DET is already decrypted in the NIM, rendering a decryption module in the DET useless.

Further, even if the decryption module of Hylton was added to the DET 202 of Goodman, the combination would not be operational. The data is already decrypted in the NIM 201 of Goodman. If DET 202 included a decryption module, it would receive already decrypted data from the NIM 201 and would not function properly. A decryption module processes encrypted data, not already decrypted data.

For at least the above reasons, claim 1 is patentable over Goodman in view of Hylton. Claims 2-4 and 11 variously depend from claim 1 and are patentable over Goodman in view of Hylton for at least the reasons advanced with reference to claim 1.

## **II. Rejection of claims 12, 14 and 15**

Claims 12, 14 and 15 were rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin. This rejection is traversed for the following reasons.

Florin was relied upon for allegedly disclosing a system having a tuner and broadband input/output modules connected by a system bus. Florin, however, fails to cure the deficiencies of Goodman in view of Hylton discussed above with reference to claim 1. Claim 12 recites a system bus, network bus and media bus and is patentable over Goodman in view of Hylton and Florin for at least the reasons advanced with reference to claim 1. Claims 14 and 15 depend from claim 12 and are patentable over Goodman in view of Hylton and Florin for at least the reasons advanced with reference to claim 12.

## **III. Rejection of claims 5-9**

Claims 5-9 were rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Rajakarunanajake. This rejection is traversed for the following reasons.

Rajakarunanajake was relied upon for allegedly disclosing features of a secured network conditional access system, but fails to cure the deficiencies of Goodman in view of Hylton discussed above with reference to claim 1. Claim 5-9 depend from claim 1 and are patentable over Goodman in view of Hylton and Rajakarunanajake for at least the reasons advanced with reference to claim 1.

## **IV. Rejection of claim 16**

Claim 16 was rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Rajakarunanajake. This rejection is traversed for the following reasons.

Rajakarunanajake was relied upon for allegedly disclosing an Ethernet transport layer, but fails to cure the deficiencies of Goodman in view of Hylton and Florin discussed above with reference to claim 12. Claim 16 depends from claim 1 and is patentable over Goodman in view of Hylton and Florin and Rajakarunanajake for at least the reasons advanced with reference to claim 12.

## **V. Rejection of claim 10**

Claim 10 was rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and D'Luna. This rejection is traversed for the following reasons.

D'Luna was relied upon for allegedly disclosing incorporating decrypting, demultiplexing and decoding functions on a single chip, but fails to cure the deficiencies of Goodman in view of Hylton discussed above with reference to claim 1. Claim 10 depends from claim 1 and is patentable over Goodman in view of Hylton and D'Luna for at least the reasons advanced with reference to claim 1.

## **VI. Rejection of claim 13**

Claim 13 was rejected under 35 U.S.C. § 103 as being unpatentable over Goodman in view of Hylton and Florin and Lorenz. This rejection is traversed for the following reasons. Lorenz was relied upon for allegedly disclosing a decoder as part of a thin client set top box, but fails to cure the deficiencies of Goodman in view of Hylton and Florin discussed above with reference to claim 12. Claim 13 depends from claim 12 and is patentable over Goodman in view of Hylton and Florin and Lorenz for at least the reasons advanced with reference to claim 12.

## **VII. Conclusion**

In view of the foregoing, it is respectfully requested that the appealed rejections be reversed.



In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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## CLAIM APPENDIX

1. A digital residential entertainment system, comprising:
  - a media server tuning to a transport layer and transmitting the entire transport layer, rather than a single program stream, over a system bus, the transport layer including multiple programs, data and information streams;
  - a broadband input/output module receiving the transport layer from the system bus and sending the transport layer to a network bus;
  - a network input/output module receiving the transport layer from the network bus;
  - a decryption module that receives the transport layer from the network input/output module and that decrypts the transport layer;
  - a demultiplexer that receives the decrypted transport layer from the decryption module and that demultiplexes the decrypted transport layer;
  - a decoder that decodes the demultiplexed and decrypted transport layer; and
  - a media bus providing a decoded transport layer from the decoder to a display device.
2. The digital residential entertainment system of claim 1, further comprising a digital-to-analog converter that converts the decoded transport layer to analog signals.
3. The digital residential entertainment system of claim 2, further comprising a conditional access system that restricts access to media services offered via the transport layer to authorized customers, and wherein the decoder is connected to a media bus and the decoder sends the decoded, multiplexed, and decrypted transport layer to the media bus.
4. The digital residential entertainment system of claim 3, wherein the conditional access system comprises a card reader and an access card, and wherein the transport layer includes multiple program signals.

5. The digital residential entertainment system of claim 3, wherein the conditional access system comprises a secured network conditional access system, and further comprising an Ethernet switch connected to the network bus and that receives the transport layer from the network bus.
6. The digital residential entertainment system of claim 5, wherein the secured network conditional access system comprises a secured Internet Protocol (IP) connection to an authentication service provider.
7. The digital residential entertainment system of claim 6, wherein the secured Internet Protocol (IP) connection is an IPsec connection.
8. The digital residential entertainment system of claim 5, wherein the secured network conditional access system comprises a broadband connection to an authentication service provider.
9. The digital residential entertainment system of claim 8, wherein the broadband connection is a private virtual circuit (PVC) connection.
10. The digital residential entertainment system of claim 1, wherein the decrypting, demultiplexing and decoding functions are integrated into a single chip.
11. The digital residential entertainment system of claim 1, wherein the network input/output module, the decryption module, the demultiplexer and the decoder comprise a computer-readable medium comprising computer-readable instructions, which when executed perform the functions of the network input/output module, the decryption module, the demultiplexer and the decoder.

12. A digital residential entertainment system, comprising:

a tuner array connected to a system bus, the tuner array receiving and demodulating a plurality of transport layers, tuning to a specific transport layer identified by a decoder and sending the entire identified transport layer, rather than a single program stream, over the system bus, the transport layer including multiple programs, data and information streams;

a broadband input/output module connected to the system bus and receiving the transport layer from the system bus and sending the transport layer to a network bus;

a network input/output module connected to the network bus and retrieving the transport layer from the network bus;

a decryption module connected to the network input/output module and that receives the transport layer from the network input/output module and that decrypts the transport layer;

a demultiplexer connected to the decryption module and that receives the decrypted transport layer and that demultiplexes the transport layer;

another decoder connected to the demultiplexer that decodes the demultiplexed and decrypted transport layer; and

a media bus providing a decoded transport layer from the another decoder to a display device.

13. The digital residential entertainment system of claim 12, wherein the decoder is part of a thin client set top box.

14. The digital residential entertainment system of claim 12, further comprising a digital-to-analog converter that converts the transport layer to analog signals, and wherein the digital-to-analog converter is connected to a media bus and the digital-to-analog converter sends the decoded, multiplexed, and decrypted transport layer to the media bus.

15. The digital residential entertainment system of claim 12, further comprising a conditional access system connected to the another decoder that restricts access to media services offered via the transport layer to authorized customers.
16. The digital residential entertainment system of claim 12, wherein the transport layer is an Ethernet transport layer.

## EVIDENCE APPENDIX

Not Applicable

## RELATED PROCEEDINGS APPENDIX

Not Applicable